



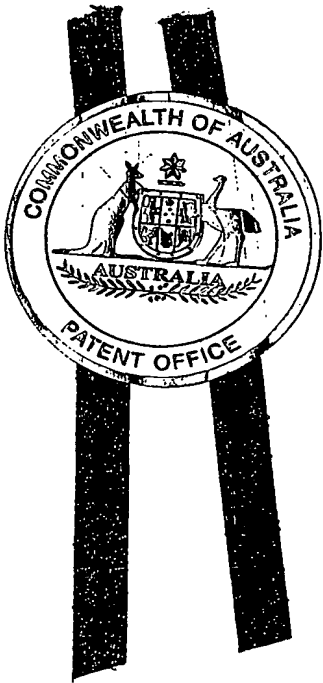
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I, JULIE BILLINGSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2003901771 for a patent by COLLOTYPE LABELS PTY LTD and AVERY DENNISON MATERIALS PTY LTD as filed on 14 April 2003.



WITNESS my hand this  
Twenty-seventh day of February 2004

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**ORIGINAL**

**PROVISIONAL SPECIFICATION FOR AN INVENTION  
ENTITLED**

Invention Title:           Label For Wet Applications

Name of Applicant:       COLLOTYPE LABELS PTY LTD and AVERY  
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**The invention is described in the following statement :**

This invention relates to labels, to containers using labels and a method of construction of a label particularly where such labels, or the container are to be used in wet applications.

5 The problem to which this invention is directed relates to the difficulty of labels, especially but not limited to those being used on bottles, after the label has become wet, losing a preferred appearance.

It is well recognised that the attractiveness of some products depends upon the ongoing good appearance of labels present on the outside of a container containing the product.

10 Such a situation certainly applies to wine, and especially those wines that might normally be subjected to moisture during cooling or being kept cool, such as some white wines.

15 While it is known to use coated papers for the production of some labels, many prefer the appearance of uncoated labels which have, for some, a preferred appearance.

The problem with an uncoated paper surface is however, that where this is subjected over a period to humidity or liquid, infusion of the liquid into the paper will cause the appearance of the paper to change, and the paper also might pucker.

20 Even though the label itself may not separate from the container to which it is attached under such wet conditions, nonetheless it is considered highly disadvantageous for ongoing best appearance that such a label simply does not look as good once it has been wet.

25 This has caused significant difficulty and there have been previous unsuccessful attempts to overcome this problem.

In secret trials conducted thus far, an attempt has been made to solve the problem by laminating the back of uncoated paper with a clear plastic film.

Unfortunately, this did not appear to provide a substantive solution.

However, the discovery of this invention has been that if an under-laminate layer is provided which is opaque, being such that the opaqueness will not of itself be removed when the material is wet, then this can provide a way of solving the general problem.

- 5 When the under-layer is opaque, the colour can then be selected and the effect of wetness is able to be controlled to maintain as desired, a selected wet appearance as distinct from the dry appearance of a label.

- 10 Further however, it has been discovered that the mere presence of some selected material can also provide a water repulsion to effect an improvement in resistance against water degradation.

- 15 In one form of this invention although this may not necessarily be the only or indeed the broadest form of this, there is proposed a label for a bottle where the label is a laminate where an outer layer is an uncoated paper, and there is an under layer of plastics film permanently adhering to a back of the upper <sup>outer</sup> layer.

- 20 In a further alternative form of this invention there is proposed a label for a bottle where the label is comprised of a laminate where an outer layer is a material susceptible to losing opaqueness when made wet, and an inner layer behind this first layer which is a material that is opaque, and such that it will maintain such opaqueness when wet.

- 25 In preference the label has an outer material adhering to an inner material, the outer material comprised of a material that is a film of plastics material.

In preference the plastics material is white.

- 30 In a further form of the invention this can be said to reside in a label for a bottle which includes an upper layer of uncoated paper and an under layer of plastics material which is opaque, the coated paper being secured to the under layer by a permanent adhesive.

In preference, the under-layer material is chosen so as to provide a stable laminate base for the uncoated paper upper-layer, and provides an underneath surface appropriate for attachment either by self adhesive, or hot melt to the container surface.

In preference, such a container is a glass bottle.

In a further form, the invention can be said to reside in the combination of such a label when adhered to a container.

In preference, the container is a bottle which is comprised of transparent glass.

In preference there is provided a label where the label is a laminate where an outermost layer is an uncoated paper, and a plastics film is permanently adhered to a back of such outer layer further characterised in that the plastics material is a biaxial polypropylene, and it has an opaqueness that is greater than 0.54 as measured by a tobias densitometer.

In preference the biaxial orientated polypropylene is a material manufactured as a five layer extruded film with a cavitated inner core.

In the alternative, the plastics film is selected from any one of a biaxial orientated polypropylene, polyethylene, non-orientated polypropylene or PET.

For a better understanding of this invention it will now be described with relation to a specific embodiment which will be described with the assistance of drawings wherein

Figure 1 is a perspective view of a bottle to which a label is attached and

Figure 2 is a cross-sectional view along the lines 2-2 in Figure 1.

The challenge has been to provide a label that has an uncoated surface that provides for many, a preferred surface appearance and texture.

However, uncoated paper is inherently vulnerable to absorption of water and the results of inundation either simply by condensation, or inundation of water are such that it creates then an appearance that is not preferred.

5 This appearance includes a change of colour and the effect can be somewhat irregular.

Also, there is a problem that such wetting will cause the paper to differentially swell or contract.

We firstly therefore adhered to the back of uncoated paper a plastics material film.

10 This then acted to hold the uncoated paper when they were inundated together but the appearance still had the irregular change in colour which looked much less desirable.

By having a plastic film which could also be opaque adhered to the back of the uncoated paper, substantially reduced this difficulty.

15 Especially then if the colour of the film was white, this then provided the dual benefits of both providing a secure holding together of the uncoated paper material as well as for reasons that are not entirely clear, an appearance that, even when the uncoated paper is inundated, does not change its appearance substantially, and maintains therefore a significantly improved appearance  
20 over what was the case hitherto.

Referring specifically to the drawings there is therefore a bottle 1 to which is adhered a label 2. The label 2 is made as a laminate with an outer layer 3 which is an uncoated paper, and this is adhering through a glue 4 to an inner film 5 which is the plastics material.

25 In the printing of labels, a stock is therefore provided where for instance the label is to be a self adhesive label, that has an uncoated upper layer and an effectively permanent adhesive which is then glued to an underlying plastics material film which in this case is a biaxial orientated polypropylene.

In this case this is manufactured as a five layer extruded film with a cavitated inner core for opacity and stiffness.

The colour of the film is white and it had a sufficient opaqueness so that it has an optical density greater than 0.54 as measured by a tobias densitometer.

- 5 The stock material is supplied when in a self-adhesive format on a glassine backing which is then supplied for application to containers.

In the case of wine, this is therefore to glass bottles, and the advantage of the invention is especially apparent for glass bottles, which have a lighter or fully transparent colouring and character.

- 10 The label according to this invention can then be applied in the traditional way from the glassine backing onto bottles.

It is considered that any of a number of plastic materials can be selected for this application and these can be for instance polyethylene film, non-orientated polypropylene film, or PET film.

- 15 In order to have a sufficient opacity, in each case, such a film would be either filled with an appropriate filler giving it a sufficient opacity for the purpose or it can be tinted again to be sufficient to provide the effective purpose.

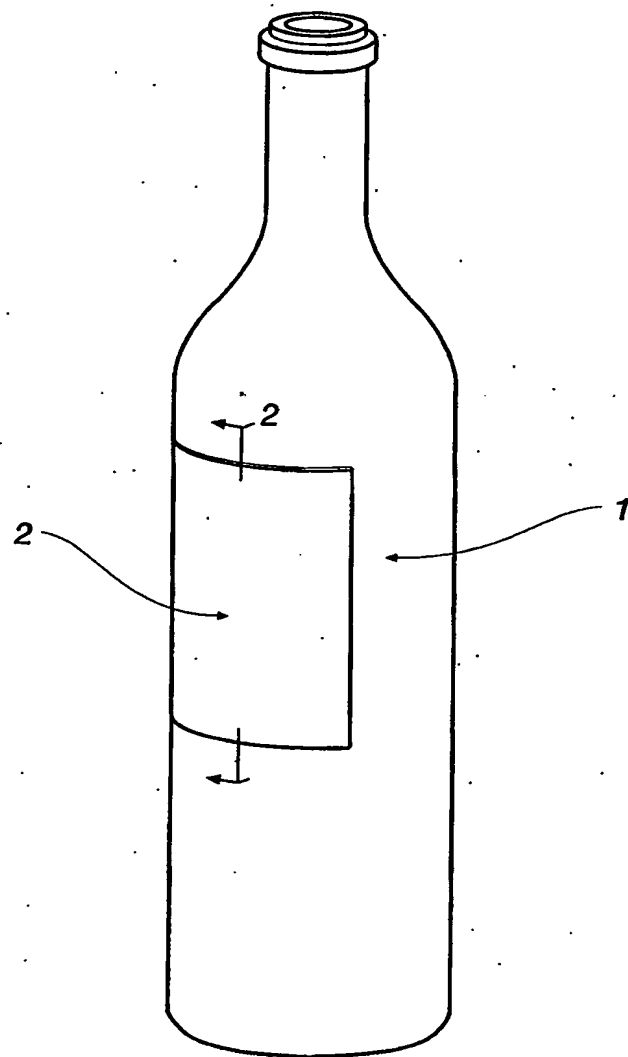
- 20 While an indication of opacity has been given, the degree of opacity that is useful in any case can be established by very simple experiment and it would not be intended in the broadest sense that the degree of opacity should be necessarily constrained to the specific reference given.

Throughout this specification the purpose has been to illustrate this invention and not to limit this.

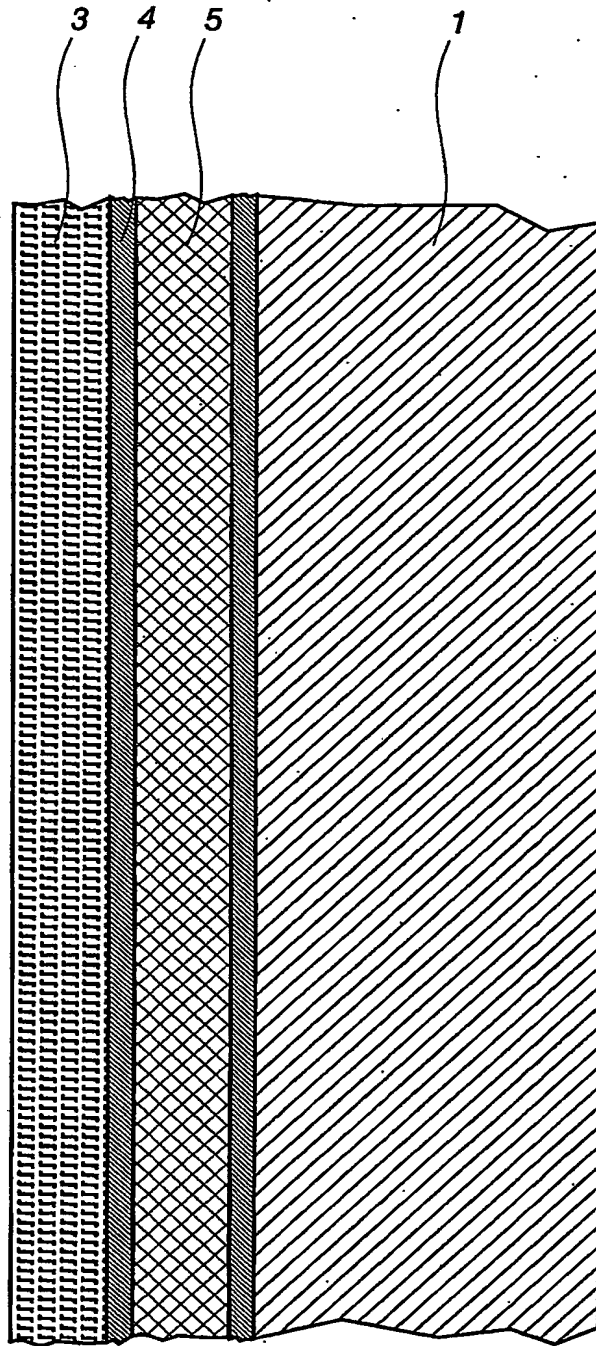
Dated this 14<sup>th</sup> day of April 2003

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COLLOTYPE LABELS PTY LTD and AVERY DENNISON MATERIALS PTY LTD  
By their Patent Attorneys,  
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**Fig 1**



**Fig 2**